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## Office of the Governor

July 16, 2019

Secretary Rick Perry U.S. Department of Energy 1000 Independence Avenue, S.W. Washington, DC 20585

## Dear Secretary Perry:

On July 4<sup>th</sup> and 5<sup>th</sup> Nevadans and a few hundred thousand holiday weekend visitors to southern Nevada were surprised and frightened by feeling and seeing the effects of the earthquakes at Ridgecrest, California, with Magnitudes of 6.4 and 7.1 respectively. In Las Vegas, 150 miles from the epicenter of the two large shocks, people felt tall buildings sway, and a national indoor sporting event was interrupted due to concerns about player safety when overhead scoring panels began to swing. One man in Nye County, the same county as Yucca Mountain, may have been killed as a result of the earthquakes. Nevadans are still experiencing the aftershock effects of these earthquakes.

The Ridgecrest earthquakes emphasize the necessity of reexamining the seismic hazards present at Yucca Mountain and specifically their linkage to seismic events in California. As evidenced by the attached letter from Nevada's State Geologist and State Seismologist, in light of these recent earthquakes, additional studies must be carried out before any determination that Yucca Mountain is a suitable site for nuclear waste disposal.

Yucca Mountain, about 100 miles northwest of Las Vegas and 100 miles northeast of Ridgecrest, California, lies within the Walker Lane – Eastern California Shear Zone, as does Ridgecrest where the two large earthquakes and thousands of continuing aftershocks are centered. The Magnitude 5.6 Little Skull Mountain earthquake, on June 29, 1992, the largest recorded in the immediate Yucca Mountain vicinity, appears to have been triggered by seismic waves from the Magnitude 7.3 Landers, California, earthquake the previous day. The Walker Lane – Eastern California Shear Zone presently accounts for 15-25% of the motion between the North American and Pacific geologic crustal plates. The remainder of this motion is along the San Andreas Fault to the west of the shear zone.

Since DOE completed Yucca Mountain site characterization studies in 2002, there has been increasing knowledge about the geologic importance of the tectonic setting in which Yucca Mountain lies and the probability that there will be increasing seismic activity in this zone. This increased seismic activity could affect in unknown ways the risk of a dangerous earthquake or volcanic event at a Yucca Mountain nuclear waste repository. Seismic hazards will affect

repository safety during a century or more of waste transportation and emplacement operations, and threaten long-term safety performance after closure, when the repository must isolate these dangerous wastes from the environment for one million years. The bottom line, according to our geotechnical expert teams at the University of Nevada, Reno and the University of Nevada, Las Vegas, is that the Ridgecrest earthquakes highlight the importance of understanding the Walker Lane-Eastern California Shear Zone and how it will control earthquake and volcanic activity at Yucca Mountain in the future. Recent events, our experts at UNLV conclude, suggest that the risk of destructive earthquakes will increase in the future. DOE has improperly minimized these risks. Nevadans ask: Why would DOE even consider proceeding with development of a repository at a location that evidences serious safety concerns and mounting uncertainty regarding its geologic hazards? Nevada's congressional delegation will continue to oppose your Department's request for appropriations to resume the Yucca Mountain licensing proceeding for this demonstrably unsuitable site. If licensing resumes, Nevada's expert team will forcefully adjudicate our 218 admitted contentions and submit additional contentions challenging the Department's license application based on all available evidence.

Respectfully,

Governor Steve Sisolak

State of Nevada

Catherine Cortez Masto United States Senator

Jacky Rosen United States Senator

Dina Titus United States Representative Mark Amodei United States Representative

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Steven Horsford United States Representative Susie Lee United States Representative